

## COMPACT TREE REPRESENTATION OF MARKUP LANGUAGES

### Abstract of the Disclosure

A document written in a markup language is represented by a unique data structure. A virtual node tree describes the structure of the data types in the document. Each one of the nodes in the virtual node tree respectively corresponds to one of the data types in the document. A data array corresponding to each one of the nodes in the virtual node tree includes information identifying the relationship of the node to other nodes in the virtual node tree and a reference indicating the location of the data corresponding to the node. A set of software components obtains the data corresponding to the nodes using the references included in the data array.